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3,243,587

PLUG-IN LIGHT FIXTURE

Filed Nov. 8, 1963

2 Sheets-Sheet 1

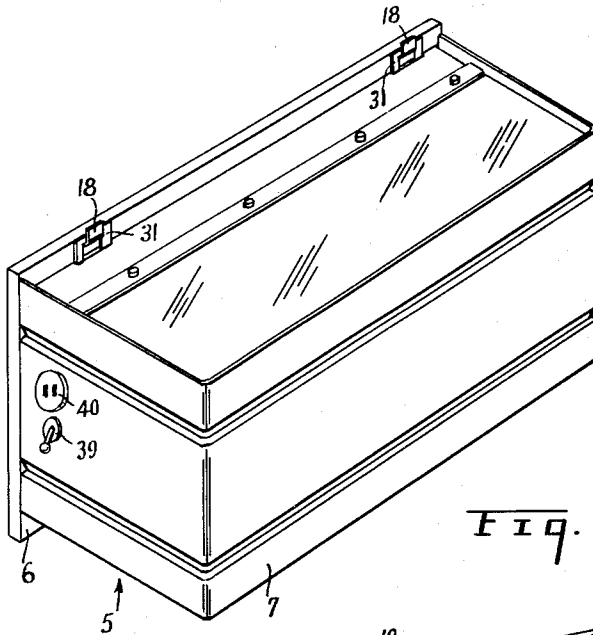


Fig. 1

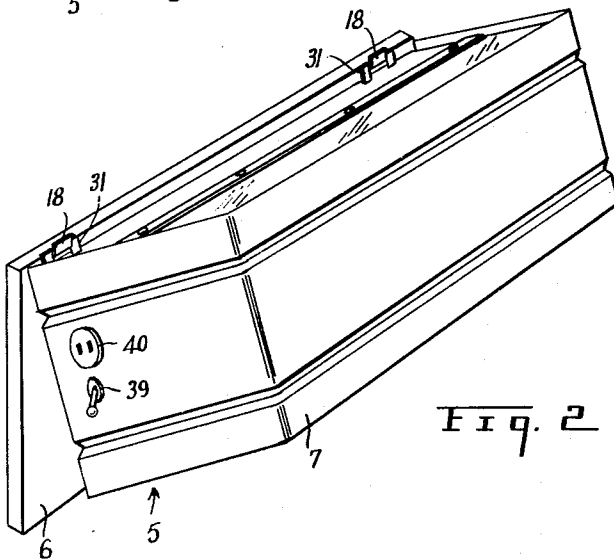


Fig. 2

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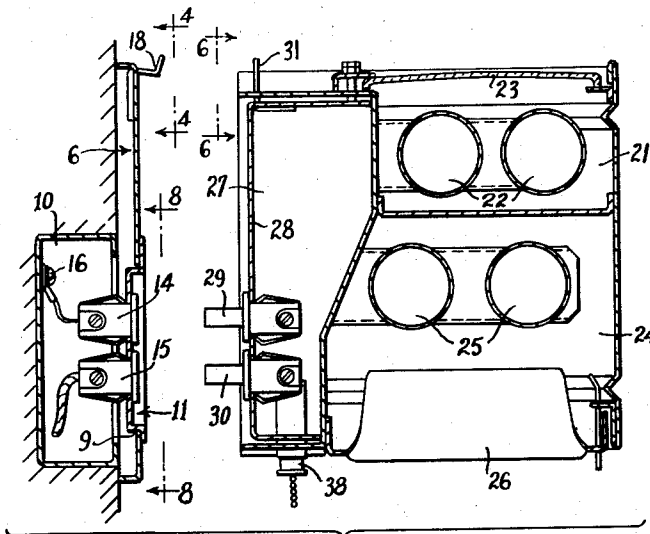


Fig. 3

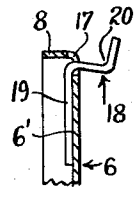


Fig. 5

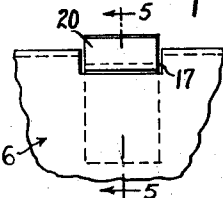


Fig. 4

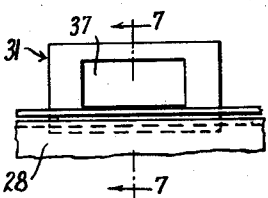


Fig. 6

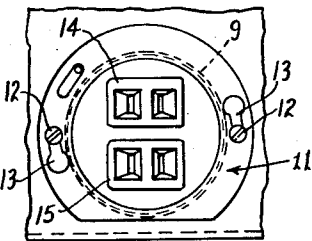


Fig. 8

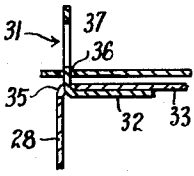


Fig. 7

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PLUG-IN LIGHT FIXTURE

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885,773

3 Claims. (Cl. 240—73)

This invention relates to light fixtures and particularly to such features which can be plugged-in where maintenance or replacement of the fixture on site would cause inconvenience.

In hospitals and such like institutions lights above beds normally combine several functions such as day and night lights and also incorporate call lights. Such multi-service units require considerable maintenance as the functions must be kept in service at all times. Maintenance at the site is the cause of considerable inconvenience to patients and hospital staff.

The present invention consists essentially of a wall plate incorporating a multiple socket, one of which is for a ground connection and one is connected to a source of electrical power, and having a pair of hooks located at the top horizontal edge of the wall plate. The light fixture is provided with a pair of brackets having apertures for engagement with the hooks on the wall plate and having male plugs aligned for engagement with the ground and power sockets of the wall plate when the fixture is pivotally mounted on the hooks of the wall plate and is swung downwardly and inwardly against the wall plate. The fixture is provided with suitable lights for day and night use and the necessary switches for the operation of the lights. The fixture can also be supplied with a power socket for the operation of accessories.

The object of the invention is to provide a light fixture which can be quickly removed and replaced with a minimum of inconvenience, without the use of tools and kept closed by gravity.

A further object of the invention is to provide a light fixture which can be plugged in and out of a permanently mounted wall plate.

A further object of the invention is to provide a light fixture particularly suitable for hospital use which can be serviced with a minimum of inconvenience to the patient over whose bed the light fixture is mounted.

A further object of the invention is to provide a plug-in light fixture which is complete with lights, switches and power outlets.

These and other objects of the invention will be apparent from the following detailed specification and the accompanying drawings in which:

FIG. 1 is a perspective view of the light fixture in position on its accompanying wall plate.

FIG. 2 is a perspective view similar to FIG. 1 but showing the light fixture hanging on its supporting hooks and pivoted into the unplugged position before removal from its supporting hooks.

FIG. 3 is a transverse vertical section of the wall plate and the light fixture showing the plug-in feature.

FIG. 4 is a partial vertical elevation on the line 4—4 of FIG. 3 showing one of the fixture supporting hooks on the wall plate.

FIG. 5 is a vertical section on the line 5—5 of FIG. 4.

FIG. 6 is a partial vertical elevation on the line 6—6 of FIG. 3 showing one of the brackets for engagement with the hooks on the wall plate.

FIG. 7 is a vertical section on the line 7—7 of FIG. 6.

FIG. 8 is a vertical elevation on the line 8—8 of FIG. 3 showing the socket mounting on the wall plate.

Referring to the drawings, the light fixture 5 consists of two main portions, a wall plate 6 which is permanently

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mounted on a wall over an outlet box and a movable plug-in portion 7 which contains all the desired lights, switches and power outlets.

The wall plate 6 is dished to provide peripheral wall engaging flanges 8 and has a circular cut-out 9 which is aligned with the wall box 10. A dished socket plate 11 is secured to the wall plate 6 by the screws 12 which engage in the slots 13.

A pair of female sockets 14 and 15 are mounted in the dished portion of the plate 11, one above the other. The uppermost socket 14 is connected to the ground screw 16 while the socket 15 is connected to a source of electrical power.

The top horizontal edge 17 of the wall plate 6 is provided with two spaced apart slots 17 through which the Z-shaped hooks 18 project. The vertical leg 19 of the hooks 18 is welded to the rear wall 6' of the wall plate 6. The right angle portion 20 of the hook 18 projects forwardly and upwardly of the top horizontal edge of the wall plate.

The plug-in portion 7 of the light fixture may be of any desired shape and size depending on the type of lighting specified and the disposition of switches and power outlets required. The plug-in portion 7 is here shown as being rectangular in shape particularly suitable for fluorescent lighting but could be designed to have incandescent lighting. The portion 7 has three main compartments, the front, top compartment 21 contains the fluorescent tubes 22 for indirect lighting and is enclosed by a glass plate 23, the front lower compartment 24 contains the fluorescent tubes 25 for direct lighting and the bottom of the compartment is provided with louvers 26.

The rear compartment 27 is enclosed by a rear wall 28 of channel shape in vertical section and encloses the necessary wiring and ballast equipment, not shown. A ground plug 29 and a power plug 30 are mounted, one above the other, on the rear wall 28.

A pair of latches 31 of angle shape have their lower horizontal legs 32 welded to the inner surface of the top horizontal leg 33 of the rear wall 28. The vertical leg 34 of the latches projects upwards through the slots 35 and 36 and are provided with a rectangular opening 37 adapted to fit over and be suspended on the hooks 18 of the wall plate 6.

The location of the latches 31 is such that when the plug-in portion 7 is latched on the hooks 18, the plugs 29 and 30 will be exactly aligned with the sockets 14 and 15 and the plug 29 will make contact with the socket 14 before the plug 30 makes contact with the socket 15 to establish a ground connection between the wall plate 6 and the plug-in portion 7 before electrical connection is established.

A pull-chain switch 38 controls the direct lights 25 and can be operated by a patient in a bed below. The night lights 22 are controlled by a toggle switch 39. A power outlet 40 can be located in any suitable location aligned with the rear compartment 27.

In the operation of this device, the wall plates 6 are aligned on the wall at suitable locations over the wall boxes 10 and the sockets 14 and 15 are permanently wired to both the source of electrical power and to ground, care being taken that the top socket 14 is always connected to ground.

The plug-in portion 7 of the fixture is completely wired in every respect before being connected to the wall plate 6.

In order to complete the assembly it is then only necessary to engage the latches 31 on the hooks 18 in the manner shown in FIG. 2 and press the portion 7 inwards against the wall plate 6. This action ensures that the ground connection through the plug and socket 29 and 14 is made before the power connection through the

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plug and socket 30 and 15 is made. The lighting fixture is now ready for use.

Should maintenance be required on the fixture it is only necessary to pull out on the lower portion of the portion 7 and after the plugs are free of their sockets, the unit can be lifted up of the hooks 18 and be taken away for whatever maintenance or repair is necessary.

The removed portion 7 of the light fixture can be replaced immediately by another similar unit.

This removal and replacement of the portion 7 of the light fixture can be done in a minimum of time and with a minimum of inconvenience to a patient in a bed below and to the normal operations in a hospital.

What I claim is:

1. A plug-in light fixture comprising a wall plate and a pivoted light fixture hingedly mounted thereon, a pair of hooks located in spaced apart relation on the upper horizontal edge of said wall plate, a pair of apertured latches on the upper horizontal edge of the said light fixture adjacent to said wall plate, the said pair of latches adapted to pivotally engage with said pair of hooks for plug-in engagement of the light fixture with the said wall plate, a pair of socket mounted in said wall plate, one of which is connected to ground and the other to a source of electrical power, and a pair of plugs mounted in said light fixture aligned to make contact with the said pair of sockets in said wall plate, the location of the said hooks and latches being such that when the latches of the light fixture are engaged with the hooks of the wall plate and the light fixture is pivoted towards the said wall plate,

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ground contact will be made between one of said plugs and one of said sockets before power contact is made with the other of said plugs and sockets.

2. A plug-in light fixture as set forth in claim 1 in which the said wall plate includes a removable dished plate aligned with a wall outlet box, and the said pair of sockets are aligned vertically one above the other on said dished plate, the uppermost of said pair of sockets being connected to ground.

3. A plug-in light fixture as set forth in claim 1 in which the said pivoted light fixture has three separate compartments, a wiring compartment housing the said plugs, an indirect light compartment facing upwards of said fixture and a direct lighting compartment facing downwards the said lighting compartments being individually accessible, and wiring and switches between the said plugs and the two lighting compartments.

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